

Work Order ID 91953

91953

Page 1

October-19-12 2:48:14 PM

Item ID: D412-742-015

Accept

N900040100

Setup

Start

NS1

Stop *NS2*

Revision ID:

Item Name: Electric Step

Start Date: 10/18/12 **Start Qty:** 2.00

2

Cust Item ID:

Required Date: 11/09/12 **Req'd Qty:** 2.00

2

Customer:

Reference:

Approvals: Process Plan: ML5

Date: 12-10-22

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr **Revision Nbr**

IIN-D412-742

E

0.00

DAS

12/10/12

for ML5 12-10-25

(2)

100

100

DC

Document Control

DOCUMENT CONTROL

0.00

CHG001

JB

110

110

Packaging

Packaging

Pick Kit

0.00

2

12/10/24 JB

0.00

120

120

QC

Quality Control

QC4- 100% Inspect kits for completeness

0.00

DAS

12/10/12

(2)

0.00

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: Part No. NCR No.		DISPOSITION		AGAINST DEPARTMENT/PROCESS									
Rework	Skid-tube	Crosstube	Water Jet	Engineering									
Scrap	Machining	Small Fab	Prod. Eng. Coor.	Quality									
Use-as-is	Thermoforming	Finishing	Rec/Store/Packaging	Other									
Work Order Update	Large Fab	Composite	Supplier										
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector				
Doc/Data													
Equip/Tooling													
Operator													
Material													
Setup													
Other													
Process													
Supplier													
Training													
Unapproved													
FAULT CATEGORY													
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio		<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	

Work Order ID 91953

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Page 2

October-19-12 2:48:14 PM

Item ID: D412-742-015

Accept

N900040100

Setup

Start

NS1

Stop

NS2

Revision ID:

Item Name: Electric Step

Start Date: 10/18/12 **Start Qty:** 2.00

2

Cust Item ID:

Required Date: 11/09/12 **Req'd Qty:** 2.00

2

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

**Sequence ID/
Work Center ID**

**Operation
Description**

**Set Up/
Run Hours**

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

130

Packaging

Packaging

0.00

12/10/2012

Packaging

Memo

0.00

Identify and pack for shipping as per PPP D412-742-015

Location: 121

PPP Rev: B

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Quality Control

Memo

0.00

MCJ 12-10-2012

NCR: Yes / No

DQA: Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering			
				Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality			
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other			
				Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data	<input type="checkbox"/>										
Equip/Tooling	<input type="checkbox"/>										
Operator	<input type="checkbox"/>										
Material	<input type="checkbox"/>										
Setup	<input type="checkbox"/>										
Other	<input type="checkbox"/>										
Process	<input type="checkbox"/>										
Supplier	<input type="checkbox"/>										
Training	<input type="checkbox"/>										
Unapproved	<input type="checkbox"/>										
FAULT CATEGORY											
Landing Gear				General							
Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced			
Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure			
Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld			
Crushed/Crimped.	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled			
Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>				
Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>				
Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>				
Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Offset	<input type="checkbox"/>		<input type="checkbox"/>				
Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>				
Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>				
Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>		<input type="checkbox"/>				

Picklist Print

Page 1

October-19-12 2:48:14 PM

Work Order ID: 91953

Parent Item: D412-742-015

Start Date: 10/18/12

Required Date: 11/09/12

Parent Item Name: Electric Step

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A New Issue 07-05-023 JLM
REV.E DD VERF:EC

IPP rev:B 12.01.12 PER IIN

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2913
Dgubler

Manufactured

No

110

Each

10.0000

1

2

✓ JB

MS21045-4
Nut

Purchased

No

Location

Loc Qty

Loc Code

ST021

10

24176

10

24176

SmD

MS24693!G272
Screw

Purchased

No

110

Each

1,264.0000

2

4

✓ JB

MS35489-35
Grommet

Purchased

No

110

Each

7.0000

0

2

✓ JB 12/10/24

SmD

9370

SmB

6880

Location

Loc Qty

Loc Code

ST295

7

6880

7

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other						

• Picklist Print

Page 2

October-19-12 2:48:14 PM

Work Order ID: 91953

Parent Item: D412-742-015

Parent Item Name: Electric Step

Start Date: 10/18/12

Required Date: 11/09/12

Start Qty: 2.00

Required Qty: 2.00

MS35489-93
GROMMET

Purchased No 110 Each 63.0000 1 2 - JB 12/10/24

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST295	35	
120769	2	
121708	33	
ST296	28	121708
116235	28	

Sm

NCR: Yes / No

DOA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order:		DISPOSITION			AGAINST DEPARTMENT/PROCESS														
		Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Machining <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/>	Quality <input type="checkbox"/>	Other <input type="checkbox"/>
Part No.:		Work Order Update <input type="checkbox"/>																	
NCR No.:																			
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description			Sign & Date	Verification		QC Inspector						
Doc/Data																			
Equip/Tooling																			
Operator																			
Material																			
Setup																			
Other																			
Process																			
Supplier																			
Training																			
Unapproved																			
FAULT CATEGORY																			
Landing Gear				General															
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions											<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other				

REFERENCE ONLY

DART AEROSPACE USA, INC.

IIN-D412-742

Sinc

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5.0 PARTS LIST

5.1 D412-742-011 (PMA/OEM) Float Skidtube Installation Parts List

Item	Qty -011	Qty -041	Qty (-015)	Part Number	Description
	X			D412-742-011	FLOAT SKIDTUBE INSTALLATION
	1	X		D412-742-041	FLOAT SKIDTUBE
	1		X	D412-742-015	ELECTRIC STEP KIT
			1	D3391-041	412 FLOAT SKIDTUBE
1		*24		*AN3C4A	*BOLT
3		*10		*AN3C6A	*BOLT
4		*4		*AN3C7A	*BOLT
5		*38		*AN960C10L	*WASHER
6		*4		*MS27039C4-12	*SCREW
7A		*4		*D3672-3	*WASHER (REPLACES NAS1515H4L)
7B		*4		*AN960C416L	*WASHER
21		*1		*D4095-041	*WEARSHOE (REPLACES D3564-1)
22		*1		*D4095-043	*WEARSHOE (REPLACES D3564-3)
23		*1		*D4095-045	*WEARSHOE (REPLACES D3564-5)
10		*1		*D3391-011	*412 FORWARD TUBE
11		**1		**D3401-041	**TOW CAP
12A		**10		**AELS-1032-225	**INSERT (REPLACES NAS1330S3KB166)
13		**10		**AN3C4A	**BOLT
14A		**4		**D3672-1	**WASHER (REPLACES NAS1515H3L)
14B		**10		**AN960C10L	**WASHER
24		**1		**D4095-051	**WEARSHOE (REPLACES D3564-13)
20		*1		*D3391-013	*412 MID TUBE
28		**24		**AELS-1032-130	**INSERT (REPLACES NAS1330S3KB116)
30		*1		*D3391-015	*412 AFT TUBE
25		**1		**D4095-049	**WEARPAD (REPLACES D3537-1)
26		**1		**D4095-047	**WEARPAD (REPLACES D3537-7)
31		**1		**D2646	**AFT CAP
32		**14		**AELS-1032-130	**INSERT
36		**8		**AELS-1032-225	**INSERT (REPLACES NAS1330S3KB366)
37A		**6		**AN3C4A	**BOLT
37B		**4		**AN3C5A	**BOLT
38A		**2		**D3672-1	**WASHER (REPLACES NAS1515H3L)
38B		**10		**AN960C10L	**WASHER
39		**4		**ALS4-428-165	**INSERT (REPLACES NAS1330S4KB151)
40	1			D2571	SADDLE, FWD OUTSIDE
41	1			D2572	SADDLE, FWD INSIDE
42	1			D2573	SADDLE, AFT OUTSIDE
43	1			D2574	SADDLE, AFT INSIDE
44	2			D2876	SADDLE SPACER
45	2			D2877	SADDLE SPACER

(CONTINUED ON PAGE 18)

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Revision: E

Date: 11.10.19

REFERENCE ONLY

S/N#

DART AEROSPACE USA, INC.

IIN-D412-742

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(CONTINUED FROM PAGE 17)

Item	Qty -011	Qty -041	Qty -015	Part Number	Description
46A	8			D3403-1	BUSHING
46B	8			D3403-5	BUSHING
47A	4			D2747	SET SCREW
47B	2			D3533-1	SET SCREW
48	16			AN4C6A	BOLT
49A	4			AN4C52A	BOLT
49B	4			AN4C53A	BOLT
50	8			AN6C12A	BOLT
51A	32			D3672-3	WASHER (REPLACES NAS1515H4L)
51B	32			AN960C416L	WASHER
52A	8			D3672-9	WASHER (REPLACES NAS1515H6L)
52B	8			AN960C616L	WASHER
53	8			D3672-11	WASHER (REPLACES NAS1515H7L)
54	24			MS21043-4	NUT
55	4			AN4C7A	BOLT
56	2			D3591-1	BUSHING
60	8			D3403-3	BUSHING
61	1			D3405-041	GHW LUG
62	1			D3405-043	GHW LUG
63	4			AN4C47A	BOLT
64	4			MS21043-4	NUT
70	1			D3407-041	TOW RING
71	2			D3417-3	WASHER
72	1			MS21043-4	NUT
73	1			D3456-1	WASHER
80			1	D2913	DOUBLER
81	***4			***ALS4-428-165	***INSERT (REPLACES NAS1329S4KB140)
82	***4			***AELS-1032-130	***INSERT (REPLACES NAS1330S3KB116)
83		2		MS21043-4	NUT
84		2		MS24693-C272	SCREW
85		1		MS35489-35	GROMMET
86		1		MS35489-93	GROMMET
87	***4			MS27039C1*09	SCREW
88	***4			MS27039C4-08	SCREW
89A	***4	2		***D3672-1	WASHER (REPLACES NAS1515H3L)
89B	***4	2		***AN960C10L	WASHER
90A	***4			***D3672-3	WASHER (REPLACES NAS1515H4L)
90B	***4			***AN960C416L	WASHER
91	3			AN3C37A	BOLT
92	2			AN3C40A	BOLT
93	3			AN3C41A	BOLT
94	3			AN3C42A	BOLT
95	3			AN3C43A	BOLT
96	9			AN3C44A	BOLT
98	10			AN3C47A	BOLT
99	66			AN960C10L	WASHER
100	33			MS21043-3	NUT

*DENOTES PART IS INCLUDED WITH D3391-041 ASSEMBLY ABOVE

**DENOTES THAT PART IS INCLUDED ABOVE ASSEMBLY

***DENOTES THAT PART IS INCLUDED WITH D3391-013

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